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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/517,211

09/19/2005

Christian Duval

22131-00014-US

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Baker Donelson Bearman Caldwell & Berkowitz PC

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EXAMINER

MENDEZ, ZULMARIAM

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/517,211	<b>Applicant(s)</b> DUVAL, CHRISTIAN	
	<b>Examiner</b> ZULMARIAM MENDEZ	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/08/2005</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 7-9, 12-14, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Zannini (EP 0618313).

With regard to claims 1 and 21-22, Zannini discloses an electrolysis installation for the production of aluminum (col. 1, lines 7-8), comprising a potroom/cell room (abstract; figures 1 and 2), a plurality of electrolytic cells (6-6a-6b) arranged inside the potroom/cell room so as to form at least one line with a main axis (figures 1-2), a service aisle (floor ) parallel to the said line of cells (6-6a-6b) and located inside the potroom/cell room and at least one first mobile lifting and handling unit (4) supported on a first runway (5) parallel to the main axis of the line (figure 1 shows handling unit (4) parallel to cells (6)), and that can be moved above the said line of cells (6-6a-6b) on the said first runway (5), at least one second mobile lifting and handling unit (10, a lift truck) and a second runway (floor) parallel to the main axis A of the line and independent of the first runway (5), in that the said second unit (10) is supported on the said second runway (floor) and can be moved along the said second runway (floor), underneath the first unit and along the said line of electrolytic cells (6-6a-6b), such that the lifting and handling units or lateral portal crane (10) can be moved independently (as shown in

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figure 1), and in that the said second unit can be used to lift and handle liquid metal ladles and / or liquid bath ladles (col. 4, lines 52-58).

With regard to claim 2, Zannini discloses wherein the lateral portal crane (10) is equipped with a trolley capable of being moved along a direction substantially perpendicular to the main axis A of the line of cells (col. 6, lines 21-26).

With regard to claims 3-4, Zannini teaches wherein the trolley of lateral portal crane (10) is equipped with lifting means and gripping means comprising at least one means of fixing an object to be lifted and handled (col. 4, lines 52-58).

With regard to claim 5, Zannini further teaches wherein the gripping means of the modules is installed on a pivoting support to enable rotation of an element that said gripping means supports about an axis B (col. 9, lines 27-30).

With regard to claim 7, Zannini discloses wherein the working range of the trolley of lateral portal crane (10) is such that a main vertical axis B thereof only overhangs the service aisle (floor), regardless of the position of said trolley (see figures 1 and 3-9).

With regard to claim 8, Zannini teaches wherein the electrolytic cells (6-6a-6b) are surrounded by working platforms (see figure 1).

With regard to claim 9, Zannini discloses wherein the service aisle/floor is located on a first level (ground level) and the working platforms are located at, at least one second elevated level at a determined height above the first level (see figures 1 and 3-6).

With regard to claims 12-14, figures 1 and 10 of Zannini show an operator walking towards a service balcony on a side of the electrolytic cells (6-6a-6b) on the

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working platforms, which is common to all cells (6-6a-6b), and wherein the working platforms of cells (6-6a-6b) comprise floors between the cells (6-6a-6b) and the service balcony (on a side of the cells) is at the same level as said floors between the cells (figures 1 and 10).

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zannini et al, as applied to claim 9 above.

With regard to claim 11, Zannini discloses wherein the service aisle/floor is located on a first level (ground level) and the working platforms are located at, at least one second elevated level at a determined height above the first level (see figures 1 and 3-6) but fails to explicitly teach wherein the first level is located at the ground level outside the potroom. However, it has been held that if a claimed invention reads on the prior art except with regard to the position of a component of a device, the invention is unpatentable if switching the position of the component would have not modified the operation of the device (it is only a design choice). In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950). In this case, locating the first level outside the potroom would not modify the operation of the device, which is to allow for the entrance of operators.

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4. Claims 10, and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zannini, as applied to claim 1 above, in view of Masuda (JP 10157972).

With regard to claims 10, 15-20, Zannini discloses all of the structure, as applied to claim 1 above, but fails to explicitly teach wherein the working range L of the trolley is such that a main axis B of the trolley may also overhangs the service balcony; wherein the second runway comprises a first running means elevated above the level of the service aisle and a second running means that is located directly on the service aisle; wherein the second runway comprises a first running means elevated above a level of the service aisle and a second running means that is located on a platform with a determined height  $H_a$  above said aisle; wherein the second runway comprises a first running means that is elevated above a level of the service aisle and a second running means located directly on the service balcony or located on a platform fixed thereto; and wherein the elevated running means is fixed to a structure of the potroom.

Masuda discloses a lifting device in a plating shop to ensure stable conveyance of a plating object (abstract) characterized in that two lifting devices cover the width of the park/potroom and move on two independent tracks (1 and 6; figures 1-4) located one above the other wherein the trolley of the second track (6) overhangs the service aisle and workstations (4); wherein the second runway (6) comprises a first running means (8) elevated above the level of the service aisle/ floor and workstation (4) and a second running means (9) that is located directly on the service aisle/floor; wherein the second runway (6) comprises a first running means (8) elevated above a level of the service aisle/floor and a second running means (9) that is located on a platform (11)

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with a determined height above said aisle/floor; wherein the second runway (6) comprises a first running means (8) that is elevated above a level of the service aisle/floor and a second running means (9) located on a platform fixed thereto (11); and wherein the elevated running means (8) is fixed to a structure of the potroom/park (10) in order to improve the output of work charging; avoid obstruction of the gears because the higher lifting gear can move above the half gantries and the work of the latter is not constrained at the time of loading. Also, the gantries may be very mobile due to the constant need for many back and forth passes, making them light and cost-effective (col. 3, paragraph 3). Even though Masuda fails to explicitly disclose wherein the height where the second running means (9) is located on the platform (11) is between 0.2 and 2.5m, he does disclose wherein the second running means (9) is located at a predetermined height from the floor (as shown in figures 1-2) in order to avoid danger created by crumbling of waste deposited on the side of the building (col. 4, paragraph 3). Therefore, one having ordinary skill in the art at the time of the invention would have found it obvious to modify the structure of the lifting devices, as taught by Masuda, in the apparatus of Zannini, in order to improve the output of work charging; avoid obstruction of the gears because the higher lifting gear can move above the half gantries and the work of the latter is not constrained at the time of loading, obtain a more cost-effective structure and to avoid danger created by crumbling of waste deposited on the side of the building.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zannini, as applied to claim 2 above, in view of Hirose (JP 60213622).

With regard to claim 6, Zannini discloses all of the structure, as applied to claim 2 above, but fails to teach wherein the lateral portal crane (10) comprises at least one transverse beam that is substantially horizontal and perpendicular to the main axis A (main axis of the line parallel to cells (6); figure 1) and in that the trolley moves on said beam.

Hirose discloses an equipment for handling materials in an electrolysis plants for the production of aluminum (page 1, first paragraph) wherein the electrolysis cells (2, 3; figure 1) comprise traversing cranes (4, 5) wherein a trolley moves on said beam (figure 2) to perform lifting operations in connection with work/maintenance on the cells. Therefore, one having ordinary skill in the art at the time of the invention would have found it obvious to modify the structure of the lifting device, as taught by Hirose, in the apparatus of Zannini in order to perform lifting operations in connection with work/maintenance of the cells.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ZULMARIAM MENDEZ whose telephone number is (571)272-9805. The examiner can normally be reached on Monday-Friday from 9am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexa D. Neckel can be reached on 571-272-1446. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Harry D Wilkins, III/  
Primary Examiner, Art Unit 1795

/Z. M./  
Examiner, Art Unit